

# Hot Water Cooler Sanitization



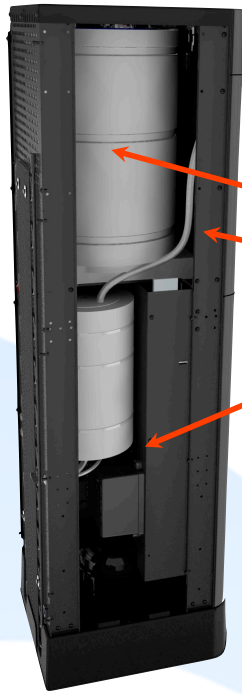
# Hot Water Sanitization

- Fully automatic system. No user or technical action required.
- Uses the internal hot tank of the water cooler to elevate the internal water temperature at user defined intervals
- Disables water cooler functions during sanitization period
- Elevates the temperature of all water in the cooler to at least 80°C (176°F)
- Uses the internal circulation system to circulate the hot water for at least 30 minutes
- Ensures hot water reaches all wetted parts in the cooler with sufficient contact time
- After sanitization is complete, water is cooled down.

# Compliance with FDA Requirements

- Sanitizing operations, including those performed by chemical means or by any other means such as circulation of live steam or hot water, shall be adequate to effect sanitization of the intended product water-contact surfaces and any other critical area. The following times and intensities shall be considered a minimum:
  - Steam in enclosed system: At least 170 deg. F (76.67 deg. C) for at least 15 minutes or at least 200 deg. F for at least 5 minutes.
  - Hot water in enclosed system: At least 170 deg. F for at least 15 minutes or at least 200 deg. F for at least 5 minutes.

\*Referenced from: Title 21--Food and Drugs; Chapter I--Food and Drug Administration  
Department of Health and Human Services; SubchapterB--Food for Human Consumption



Hot water sanitizes the:  
Cold Tank  
Waterways  
Faucet



Tanks and waterways that are  
marked in red are sanitized

# Proven Testing and Validation

- Tests conducted at a 3<sup>rd</sup> party lab to determine the optimum temperature setting and circulation time
- Two test coolers spiked with Pseudomonas and measurements taken before sanitizing
- The hot water sanitizing protocol set to run 24 hours after dosing with Pseudomonas and then every 24 hours thereafter
- Pseudomonas measurements taken at 24 hours, 72 hours, 1 week and 30 days
- Achieved 4 log reduction at the lowest temperature and circulation time
- Final Flavor Profile Analysis, TOC and VOC tests conducted on wetted part